



West Nile Virus Awareness

Stephanie Miladin
Greater Los Angeles County
Vector Control District

What's A Vector

Any animal or insect capable of transmitting a disease or is considered a public health nuisance.



We Prevent and Control Vectors

- Mosquitoes



- Africanized honeybees



- Black Flies



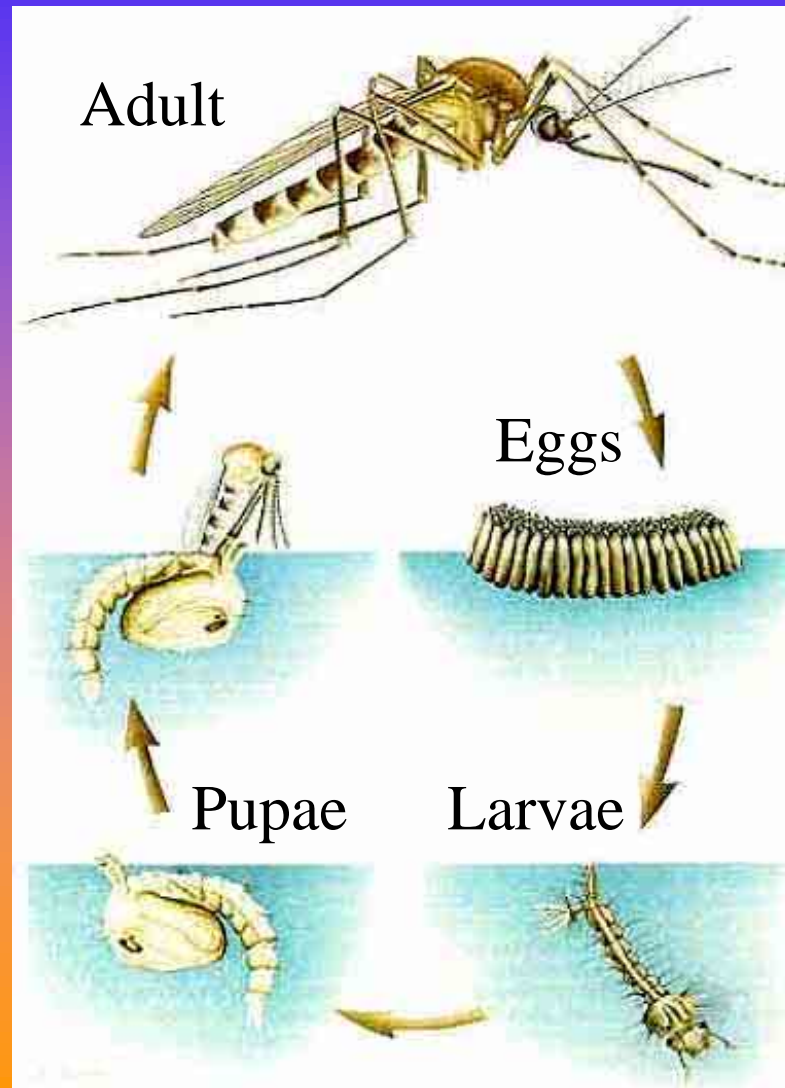
- Midges



Health Risks Associated With Mosquitoes

- **St. Louis encephalitis:** humans
- **Western Equine encephalitis:** humans and horses
- **West Nile virus:** humans, horses, birds, and other animals
- **Malaria:** humans
- **Heartworm:** dogs and cats
- **Allergic reactions**

Mosquito Life Cycle



Male vs. Female Mosquito



Female



Male

© 2002 Stephen L. Doggett

Backyard Mosquito Breeding Sources



Mosquito Control

- Integrated Mosquito Management (IMM)
 - Biological control
 - Source reduction
 - Control agents



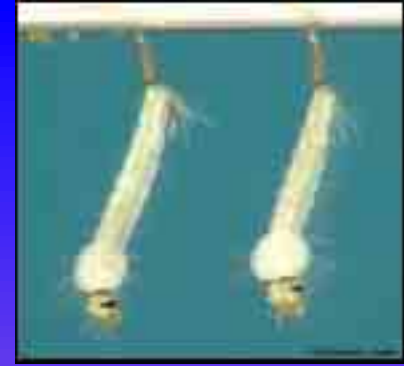
Mosquito Control

Adulticiding

Larviciding



Larvicides



- Bti- *Bacillus thuringiensis israelensis*
- Methoprene
 - Briquets
 - Liquid
 - Pellets
 - Granules
- Oil

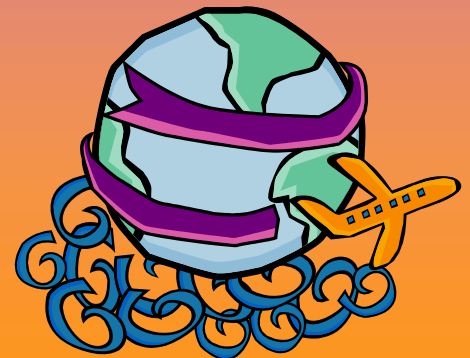


Chronic Mosquito Breeding Sources



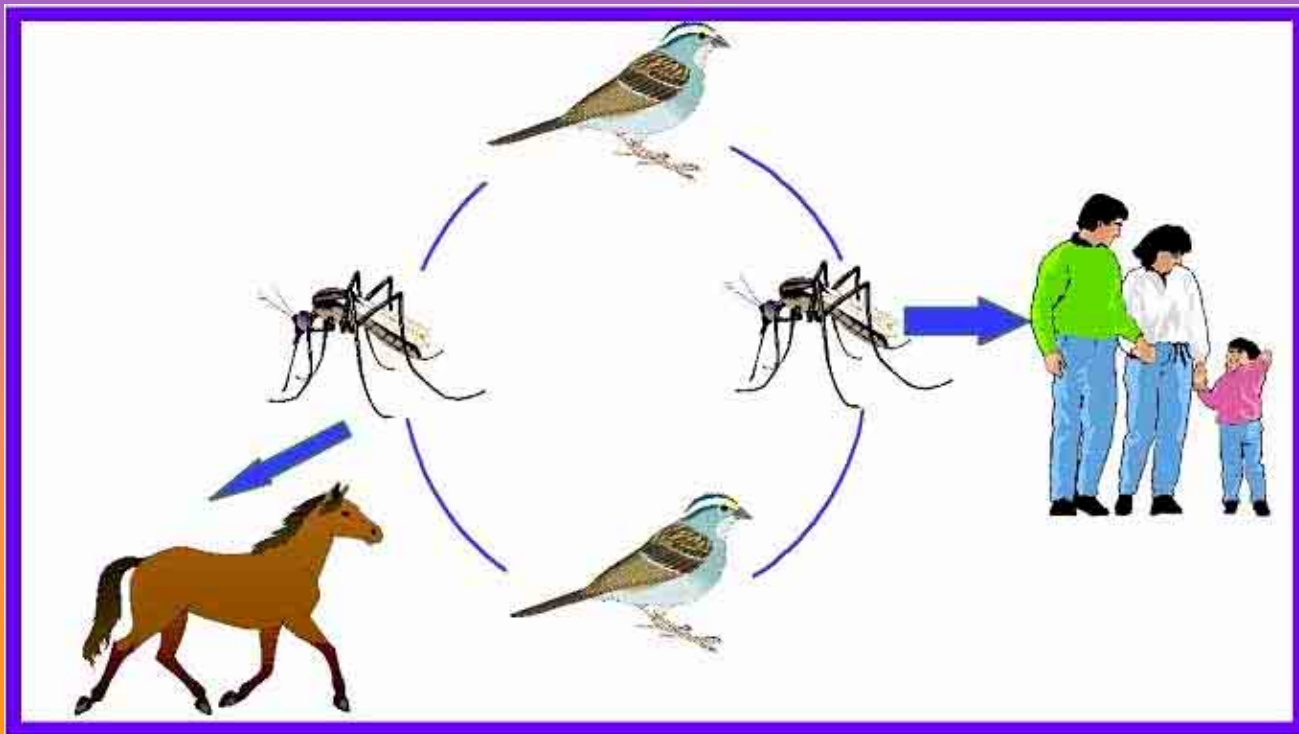
History Of West Nile Virus

- Isolated from a woman in the West Nile District of Uganda in 1937
- 1999 first appearance of WN virus in North America occurred in New York
 - 62 human cases and 7 deaths in New York area
 - Moving westward since 1999



West Nile Virus Transmission

- This virus is spread by mosquitoes, which feed on the blood of infected birds and then pass it on to humans and other mammals.





Nile Virus Transmiss



- Humans
 - Organ donations/blood transfusions
 - Breast milk
 - Intrauterine infection
- Birds
 - Transmitted directly from bird to bird
- Not spread by person-person contact or directly from birds to people

Symptoms



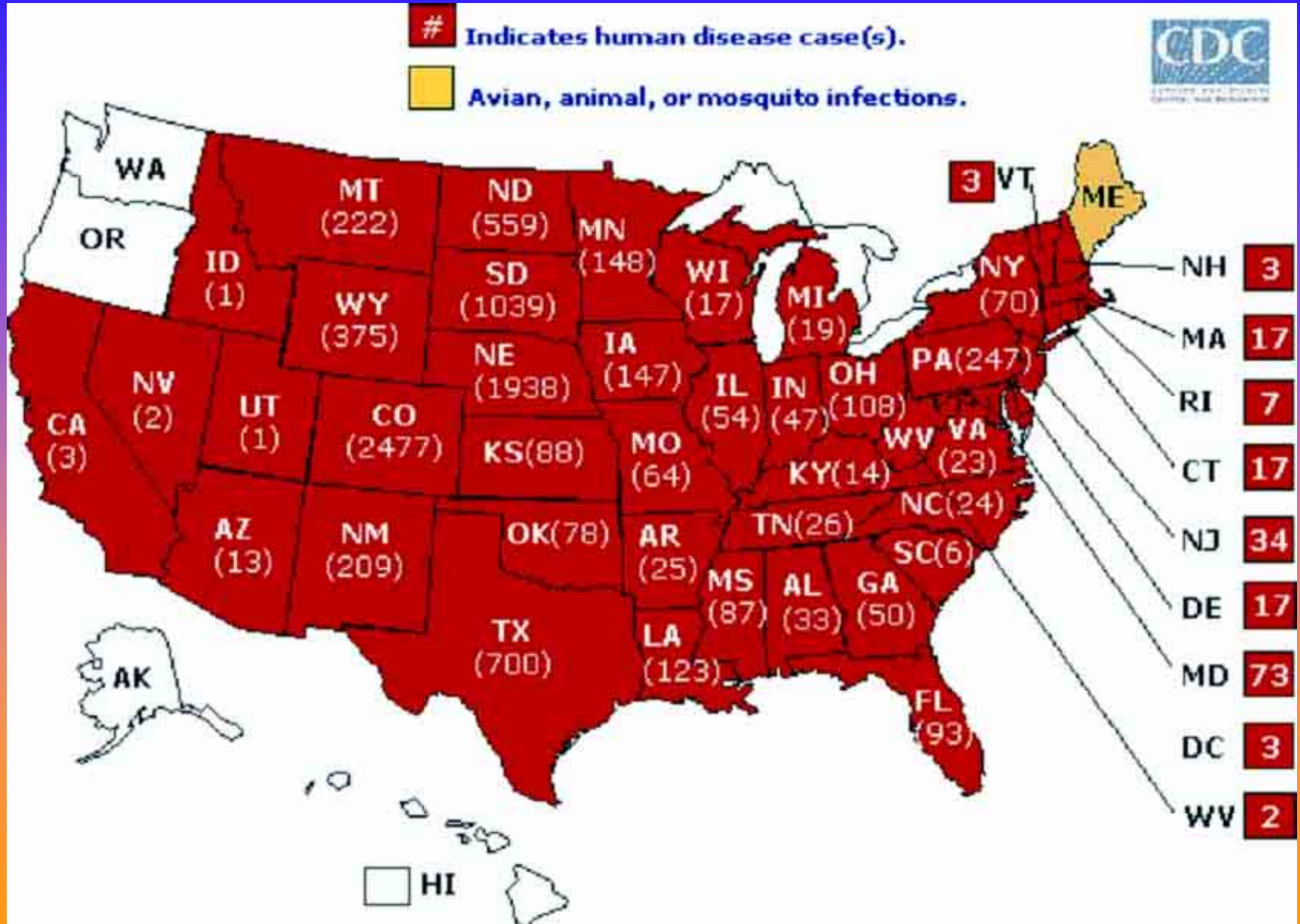
- Most people who are infected have no symptoms
- Those who become ill show the following:
 - Fever, headache, nausea, body aches, mild skin rash, or swollen lymph nodes.
 - In a few cases, it will progress to encephalitis (inflammation of the brain).

Diagnosis



- **Incubation period:** 3-15 days
- **Greatest risk:** Persons over the age of 50
- **Mortality rate:** 3-15% especially in elderly
- **Treatment:** No vaccine exists for humans, though most people who get the illness recover. Intensive supportive therapy is indicated in more severe cases.

2004 WNV in U.S.



Where Has West Nile Virus Been Detected?



- Evidence of this disease has been confirmed in Los Angeles, Riverside, Orange, and Ventura Counties (2004).
 - Dead birds predominantly crows in the San Gabriel Valley.
 - Mosquitoes confirmed positive for WNV in Los Angeles, Riverside, and San Bernardino.
 - No human cases for 2004.

West Nile Virus Surveillance

- GLACVCD has an ongoing disease surveillance program that includes testing:
 - Sentinel chicken blood samples
 - Wild bird blood samples
 - Mosquitoes



How Will You Warn Us?

- Through press releases on radio, television, and print materials
- Post warning signs in public areas where people may be active between dawn and dusk.



ADVERTENCIA DE LA ENFERMEDAD
Virus Del Oeste Del Nilo

Enfermedad transmitida al ser humano por la picadura de mosquitos. Esta enfermedad puede causar fiebre y dolor, y en algunos casos puede ser fatal.

FAVOR SIGUE ESTAS PRECAUCIONES:

- Evite actividades durante tiempo cuando los mosquitos están más activos, al amanecer o al atardecer.
- Cuando este afuera, aplique repelentes contra mosquitos que contengan el ingrediente DEET. Siga las instrucciones para aplicar el repelente.
- Proteja su cuerpo (use ropa floja, colores claros con mangas largas y pantalones largos.)
- Proteja su casa con telas metálicas en todas las ventanas y las puertas. Asegúrese que estén bien instalados.
- Elimine aguas estancadas alrededor de su propiedad. Charcos de agua pueden criar mosquitos.

Siguiendo estas precauciones podemos prevenir esta enfermedad. Para más información llame al:

Greater Los Angeles County Vector Control District
12545 Florence Ave.
Santa Fe Springs, CA 90670
(952) 944-3656



DISEASE WARNING
West Nile Virus
Has Been Confirmed
In This Area

This disease is transmitted to humans & horses by the bite of infected mosquitoes.

FOLLOW THESE PRECAUTIONS

- AVOID ACTIVITY IN THIS AREA between dusk and dawn when mosquitoes are most active.
- APPLY MOSQUITO REPELLENT containing the active ingredient DEET when outside.
- WEAR PROTECTIVE CLOTHING (loose, light colored, long sleeve shirts and pants.)
- MOSQUITO-PROOF YOUR HOME with light fitting screens on windows and doors.
- ELIMINATE STANDING WATER around your property.

For Further Information Contact:
Greater Los Angeles County Vector Control District
12545 Florence Ave.
Santa Fe Springs, CA 90670
(952) 944-3656

Residents Can Participate in WNV Surveillance



- One indicator of the presence of WNV is a sudden increase in the number of dead birds, particularly:
 - Crows and other corvids (e.g., jay, magpie, raven, etc.)
 - If you find a freshly dead crow lacking obvious signs of trauma, promptly call

1-877-WNV-BIRD for instructions.

West Nile Prevention and Control

- Minimize time spent outdoors between dawn and dusk when mosquitoes are most active.
- Wear loose, light colored protective clothing (long sleeve shirts and pants)
- Apply mosquito repellent, containing the active ingredient DEET
- Exclude mosquitoes from home with tight fitting screens on doors and windows.
- Drain all standing water on your property

For More Information

Contact:

The Greater Los Angeles County

Vector Control District

12545 Florence Ave.

Santa Fe Springs, CA 90670

(562) 944-9656

www.glacvcd.org